

## SEQUENCE LISTING

<110> PAPADOPOULOS, VASSILIOS  
HAU, LI

<120> PERIPHERAL-TYPE BENZODIAZEPINE RECEPTOR ASSOCIATED  
PROTEINS, CLONING, EXPRESSION AND METHODS OF USE

<130> 082137-0277848

<140> 09/762,594  
<141> 2001-02-09

<150> PCT/US99/18507  
<151> 1999-08-11

<150> 60/096,048  
<151> 1998-08-11

<160> 11

<170> PatentIn Ver. 2.1

<210> 1  
<211> 505  
<212> DNA  
<213> Mus musculus

<400> 1  
gattcgcggc cgcgctcgacc accgctgcgc cctcctgcga ggccggctga acgaggaaat 60  
aattgtcaat aaggcctctg tagccatggc tacttctgac gtgaaaccaa aatcaataag 120  
tcgtgccaag aaatggtcag aggaaataga aaatctgtac agatttcaac aagcaggata 180  
tcgggatgaa attgaatata aacaagtgaa acaagttgcc atggtcgacc gatggccaga 240  
gacagggatc gtgaagaaaac tttagccggag ggacaataact ttcttctact acaacaaga 300  
gagggatgc gaggacaagg aggtccacaa agtgaagggt tacgtctact gacctttcc 360  
tttcttcggc ttggcaatgc tccttaaga attgggtgtt tacattcttc catcggtaa 420  
atgtcattt acaaacaat tcacaattct gtcttaatt catgggtct tacacaacat 480  
aaacacccac ctgaaacccc aaaaaa 505

<210> 2  
<211> 1459  
<212> DNA  
<213> Mus musculus

<400> 2  
gaattcgcgg ccgcgtcgac ctaaagttga gttgttcact gtagtgaccc gtgtgaaggt 60  
agtttattt ttaaatcaac tttcatgtg caaacttagta aaagatggca aagccttca 120  
tccaacttat gaagaaaaac tgaagttcggt ggcactgcatt aagcaagttc ttttggggcc 180  
atataaccca gacacgtccc ctgagggttg attctttgtat gtgttgggaa atgataggag 240  
gagagaatgg gcagctctgg gaaacatgtc caaggaggat gccatggtag agtttgcgaa 300  
gcttctaaat aagtgttgc ctctcccttc ggcataatgtt ggcgtccacaa gaatagagaa 360  
ggaagaagaa gagaaaaagaa gaaaggcggg ggaggagcga aggcagcgtg aagaggaaga 420  
acgagagcgg ctgcggaaagg aagaagagaa gcggaaagcga gaggaggaag accggctgag 480  
acggggaggag gaagagaggg ggcggataga ggaagagagg ctccggctgg aacagaaaa 540  
gcagcagata atggcagctt taaactcgca gactgccgtg caattccagc agtatgcagc 600  
ccagcagatccat ccaggaaact acgaacaaca gcagattctc atccggccagc tgcaggagca 660  
gcactatcag cagtataaac accaggcaga gcaaacccaa cctgcacaac aacaggcagc 720

attacagaaa cagcaagaag tagtgatggc tggggcatca ttgcctgcat catcaaagg 780  
 gaacacagct ggagcaagt atacaactgtc agttaatggc caggccaaaa cccacactga 840  
 aaattccgaa aaagtccctt agccagaagc tgccagaagaa gccttggaaa atggaccaa 900  
 agactcttt ccagtgattt cagctccatc catgtggaca agaccacaaa tcaaagactt 960  
 taaagagaag atccggcagg atgcagattt tttgattaca gtacgtcgag gagaagtcgt 1020  
 caccgtccga gtcccgaactc atgaggaagg atcataccta ttttggaaat ttgccacaga 1080  
 cagttatgac attgggtttt gggtttattt tgaatggaca gactctccaa atgctgtgt 1140  
 cagtgtgcat gtcagtggat ccagtgacga ggaggaggag gaggaagaaa atgtcactt 1200  
 tgaagaaaaaa gcaaaaaaaga acgccaacaa gcctctgctg gatgagattt tacctgtta 1260  
 ccggcgggac tgtcacggg aagtatatgc aggccac cgtatccag ggaggggagt 1320  
 ctatctcctc aagttgata attcctactc tctgtggagg tccaagtccg tctactacag 1380  
 agtctattat actagataga gctgctgttc caaggtccgg agtccagggt tgagcacaac 1440  
 atgacgttta atttccttt 1459

<210> 3  
 <211> 568  
 <212> DNA  
 <213> Mus musculus

<400> 3  
 gaattcgcgg ccgcgtcgac gctggacaca agcgtggagc gaagagccct tggagagatt 60  
 cagaatgttag gtgaaggctc ttcaacatca cagggcacct ggcagtcttc agagtccca 120  
 cagtcaaacc tgggggagca gacgcagagc ggaccccagg gaggaagggtg tcagcgtcgg 180  
 gagaggcata accgaatgga acgagatagg aggcgcagaa tccgcattt ctgtgtatgag 240  
 ctgaatcttt tagtccatt ctgcaatgcg gagacagata aagcaacaac ctttcagtg 300  
 accacagcat tcctgaagta cattcagggaa agacatgggg actctcttaa aaaggaattt 360  
 gagagcgtgt tttgcgttaa aactggcaga aggctaaagc tgacttagacc cgaatccctg 420  
 gtgacactgccc ctgcacaggg cagccgtcgag agcagccctg ccatggagat caagtgactg 480  
 gactgaccca ggacctggga gagaaccggc gttcctgcgg catcatgcac atgcctgcca 540  
 tccccggaaat tcaagctctc atcctctc 568

<210> 4  
 <211> 490  
 <212> DNA  
 <213> Mus musculus

<400> 4  
 gaattcgcgg ccgcgtcgac ctcggggta acccttggga tcattatgtat gtcacctttt 60  
 caatctctt agaccagtga tttatgaact tgacatttgg tgcctgggtt gggctttgga 120  
 aagcagagggc cacccttgc ttagaggat actgagccgc tggatggcag gaatccaaag 180  
 agaagccagc ctctcgtagt cgccttggaa cagtggaaaga gagggaggac cggcaaagg 240  
 gaatctgtct ttctccttagg cccgagcatg tcccctgtgg gacatgtct gtgacagctg 300  
 agcctgccc gcctgccttt ctgaaggttt gtgtctcctg cccacaacca agccagcaat 360  
 cggtctgttt tccgacaacc tcagaggccag acctcacaag cctattttgg tggttccaa 420  
 aatttctctc agatctccat gtctatccct ccactccctc caaaagagaa agaaaagaat 480  
 tgagaaagaa 490

<210> 5  
 <211> 588  
 <212> DNA  
 <213> Mus musculus

<400> 5  
 gaattcgcgg ccgcgtcgac ctcagaagag gaaaagagggt gcagaagtgc tggcggcaca 60  
 aattgtacag aaaaccagac tagagagaaa aaaacaagaa gcgtctgtat ctaaagatgc 120

tccagtgcct acaaatacta aaaggcataaa gaaacaagag aagtctccag gtagaattgc 180  
 ctcacagtct aagccaccca tgaaaaagtc tccacaaaaa cggaaggtaa atgttagcaag 240  
 aggccgtcgg aataccagaa agcagctcca acctgccgaa aaagaaaattt ctttacatct 300  
 tcaatcagaa atttcatcgat tggccaaaa agatggactt aacctaagta catctcaaca 360  
 agaaagtatt tcaatgattc ctaaagggtcc tcctgaaaac tcagttatca gctgtgactc 420  
 ccagggcccta aatatgttag ctgatctggc attaagttct gctgctgctt ctataaccatc 480  
 ttgttaagccc aggaaccttc cctgcgtctc tgatttgcga cgaaacaatg tcttactcac 540  
 taaagaaaat ccattgcttg gtgcctctga ccatgaatat cataaggg 588

<210> 6  
 <211> 88  
 <212> PRT  
 <213> Mus musculus

<400> 6  
 Met Ala Thr Ser Asp Val Lys Pro Lys Ser Ile Ser Arg Ala Lys Lys  
 1 5 10 15

Trp Ser Glu Glu Ile Glu Asn Leu Tyr Arg Phe Gln Gln Ala Gly Tyr  
 20 25 30

Arg Asp Glu Ile Glu Tyr Lys Gln Val Lys Gln Val Ala Met Val Asp  
 35 40 45

Arg Trp Pro Glu Thr Gly Tyr Val Lys Lys Leu Gln Arg Arg Asp Asn  
 50 55 60

Thr Phe Phe Tyr Tyr Asn Lys Glu Arg Glu Cys Glu Asp Lys Glu Val  
 65 70 75 80

His Lys Val Lys Val Tyr Val Tyr  
 85

<210> 7  
 <211> 463  
 <212> PRT  
 <213> Mus musculus

<400> 7  
 Arg Pro Arg Arg Pro Lys Val Glu Leu Phe Thr Val Val Thr Arg Val  
 1 5 10 15

Lys Val Val Leu Phe Leu Asn Gln Leu Ser Leu Cys Lys Leu Val Lys  
 20 25 30

Asp Gly Lys Ala Phe His Pro Thr Tyr Glu Glu Lys Leu Lys Phe Val  
 35 40 45

Ala Leu His Lys Gln Val Leu Leu Gly Pro Tyr Asn Pro Asp Thr Ser  
 50 55 60

Pro Glu Val Gly Phe Phe Asp Val Leu Gly Asn Asp Arg Arg Glu  
 65 70 75 80

Trp Ala Ala Leu Gly Asn Met Ser Lys Glu Asp Ala Met Val Glu Phe  
 85 90 95

Val Lys Leu Leu Asn Lys Cys Cys Pro Leu Leu Ser Ala Tyr Val Ala  
100 105 110

Ser His Arg Ile Glu Lys Glu Glu Glu Lys Arg Arg Lys Ala Glu  
115 120 125

Glu Glu Arg Arg Gln Arg Glu Glu Glu Arg Glu Arg Leu Gln Lys  
130 135 140

Glu Glu Glu Lys Arg Lys Arg Glu Glu Asp Arg Leu Arg Arg Glu  
145 150 155 160

Glu Glu Glu Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln  
165 170 175

Gln Lys Gln Gln Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln  
180 185 190

Phe Gln Gln Tyr Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln  
195 200 205

Gln Ile Leu Ile Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Lys  
210 215 220

His Gln Ala Glu Gln Thr Gln Pro Ala Gln Gln Ala Ala Leu Gln  
225 230 235 240

Lys Gln Gln Glu Val Val Met Ala Gly Ala Ser Leu Pro Ala Ser Ser  
245 250 255

Lys Val Asn Thr Ala Gly Ala Ser Asp Thr Leu Ser Val Asn Gly Gln  
260 265 270

Ala Lys Thr His Thr Glu Asn Ser Glu Lys Val Leu Glu Pro Glu Ala  
275 280 285

Ala Glu Glu Ala Leu Glu Asn Gly Pro Lys Asp Ser Leu Pro Val Ile  
290 295 300

Ala Ala Pro Ser Met Trp Thr Arg Pro Gln Ile Lys Asp Phe Lys Glu  
305 310 315 320

Lys Ile Arg Gln Asp Ala Asp Ser Val Ile Thr Val Arg Arg Gly Glu  
325 330 335

Val Val Thr Val Arg Val Pro Thr His Glu Glu Gly Ser Tyr Leu Phe  
340 345 350

Trp Glu Phe Ala Thr Asp Ser Tyr Asp Ile Gly Phe Gly Val Tyr Phe  
355 360 365

Glu Trp Thr Asp Ser Pro Asn Ala Ala Val Ser Val His Val Ser Glu  
370 375 380

Ser Ser Asp Glu Glu Glu Glu Glu Asn Val Thr Cys Glu Glu  
385 390 395 400

Lys Ala Lys Lys Asn Ala Asn Lys Pro Leu Leu Asp Glu Ile Val Pro  
 405 410 415

Val Tyr Arg Arg Asp Cys His Glu Glu Val Tyr Ala Gly Ser His Gln  
 420 425 430

Tyr Pro Gly Arg Gly Val Tyr Leu Leu Lys Phe Asp Asn Ser Tyr Ser  
 435 440 445

Leu Trp Arg Ser Lys Ser Val Tyr Tyr Arg Val Tyr Tyr Thr Arg  
 450 455 460

<210> 8

<211> 158

<212> PRT

<213> Mus musculus

<400> 8

Glu Phe Ala Ala Ala Ser Thr Leu Asp Thr Ser Val Glu Arg Arg Ala  
 1 5 10 15

Leu Gly Glu Ile Gln Asn Val Gly Glu Gly Ser Ser Thr Ser Gln Gly  
 20 25 30

Thr Trp Gln Ser Ser Glu Ser Ser Gln Ser Asn Leu Gly Glu Gln Thr  
 35 40 45

Gln Ser Gly Pro Gln Gly Gly Arg Cys Gln Arg Arg Glu Arg His Asn  
 50 55 60

Arg Met Glu Arg Asp Arg Arg Arg Arg Ile Arg Ile Cys Cys Asp Glu  
 65 70 75 80

Leu Asn Leu Leu Val Pro Phe Cys Asn Ala Glu Thr Asp Lys Ala Thr  
 85 90 95

Thr Leu Gln Trp Thr Thr Ala Phe Leu Lys Tyr Ile Gln Glu Arg His  
 100 105 110

Gly Asp Ser Leu Lys Lys Glu Phe Glu Ser Val Phe Cys Gly Lys Thr  
 115 120 125

Gly Arg Arg Leu Lys Leu Thr Arg Pro Glu Ser Leu Val Thr Cys Pro  
 130 135 140

Ala Gln Gly Ser Leu Gln Ser Ser Pro Ala Met Glu Ile Lys  
 145 150 155

<210> 9

<211> 112

<212> PRT

<213> Mus musculus

<400> 9

Ala Ala Gly Trp Gln Glu Ser Lys Glu Lys Pro Ala Ser Arg Ser Arg  
 1 5 10 15

Pro Gly Thr Val Glu Glu Arg Glu Asp Arg Gln Arg Gly Ile Cys Leu  
 20 25 30

Ser Pro Arg Pro Glu His Val Pro Cys Gly Thr Cys Ser Val Thr Ala  
 35 40 45

Glu Pro Ala Gln Pro Ala Phe Leu Lys Leu Gly Val Ser Cys Pro Gln  
 50 55 60

Pro Ser Gln Gln Ser Val Cys Phe Pro Thr Thr Ser Glu Pro Asp Leu  
 65 70 75 80

Thr Ser Leu Phe Trp Trp Phe Pro Lys Phe Leu Ser Asp Leu His Val  
 85 90 95

Tyr Pro Ser Thr Pro Ser Lys Arg Glu Arg Lys Glu Leu Arg Lys Lys  
 100 105 110

<210> 10

<211> 196

<212> PRT

<213> Mus musculus

<400> 10

Asn Ser Arg Pro Arg Arg Pro Gln Lys Arg Lys Arg Gly Ala Glu Val  
 1 5 10 15

Leu Ala Ala Gln Ile Val Gln Lys Thr Arg Leu Glu Arg Lys Lys Gln  
 20 25 30

Glu Ala Ser Val Ser Lys Asp Ala Pro Val Pro Thr Asn Thr Lys Arg  
 35 40 45

Ala Lys Lys Gln Glu Lys Ser Pro Gly Arg Ile Ala Ser Gln Ser Lys  
 50 55 60

Pro Pro Met Lys Lys Ser Pro Gln Lys Arg Lys Val Asn Val Ala Arg  
 65 70 75 80

Gly Arg Arg Asn Thr Arg Lys Gln Leu Gln Pro Ala Glu Lys Glu Ile  
 85 90 95

Ala Leu His Leu Gln Ser Glu Ile Ser Ser Asp Gly Gln Lys Asp Gly  
 100 105 110

Leu Asn Leu Ser Thr Ser Gln Gln Glu Ser Ile Ser Met Ile Pro Lys  
 115 120 125

Gly Pro Pro Glu Asn Ser Val Ile Ser Cys Asp Ser Gln Ala Leu Asn  
 130 135 140

Met Leu Ala Asp Leu Ala Leu Ser Ser Ala Ala Ala Ser Ile Pro Ser  
 145 150 155 160

Cys Lys Pro Arg Asn Leu Pro Cys Val Ser Asp Leu Pro Arg Asn Asn  
165 170 175

Val Leu Leu Thr Lys Glu Asn Pro Leu Leu Gly Ala Ser Asp His Glu  
180 185 190

Tyr His Lys Gly  
195

<210> 11  
<211> 25  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
peptide

<400> 11  
Ser Ser Asp Glu Glu Glu Glu Glu Asn Val Thr Cys Glu Glu  
1 5 10 15

Lys Ala Lys Lys Asn Ala Asn Lys Pro  
20 25

D D G E 2 S E 2 T I R D G E 2 S E 2 T I R